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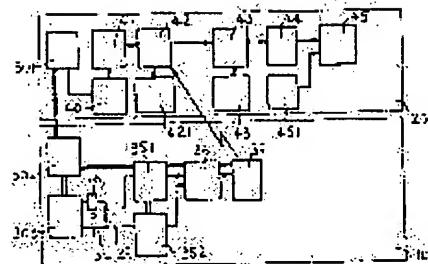
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(54) FUEL CONCENTRATION SENSOR FOR FUEL CELL

(57)Abstract:

PURPOSE: To obtain a steady sensor output relating to fuel concentration to increase detecting sensitivity by isolating a fuel concentration power source which determines fuel supply timing from the potential generating in an anolyte.

CONSTITUTION: An output of a concentration sensor 16 is compensated with a temperature compensating circuit through a temperature sensor 34 set in the vicinity thereof, and converted into the signal of '0' or '1' with a comparator 36 through a head amplifier 351. When fuel shortage signal '1' from the concentration sensor 16 is indicated repeatedly three times by the setting of a reference clock 40, an abnormal judgement 43 is made to produce an abnormal indication 431, and a supply pump driving 45 is performed with a driving signal 44 to replenish fuel. The fuel shortage indication 421 is made by converting a concentration sensor output into a signal with the comparator 36, then by sending the signal converted to a shift register 42 through a photocoupler 39. Since the power source of the concentration sensor 16 is completely isolated from the potential generating in an anolyte, a steady sensor output relating to fuel concentration is obtained.



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